

BROCKWAY ANALYTICAL INCORPORATED

R. D. 2 Box 282A

BROCKWAY, PENNSYLVANIA 15824

(614) 265-1122

April 21, 1984

ORIGINAL
(Red)



Powder Metal Products, Inc.
879 Washington Road
ST. Marys, PA 15857

RE: Hazardous Waste Determinations
Samples #1, #2, and #3 (Note Sample Index)

Gentlemen,

A hazardous waste determination for a particular waste requires that the Chemist evaluate the U.S.E.P.A. defined characteristics of Ignitability, Corrosivity, Reactivity, and EP Toxicity. Of these, Corrosivity and EP Toxicity routinely require laboratory testing while Ignitability and Reactivity can often be determined based on knowledge of the waste material chemistry.

We have completed EP Toxicity and Corrosivity (pH) tests on the three submitted samples and summarized the analytical results on the three attached report forms. The results were obtained using the methods specified in the U.S.E.P.A. manual "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods" SW-846. The extraction procedure-toxicity test method for samples with less than .5% solids was utilized.

Review of the analytical results and comparison with the appropriate U.S.E.P.A. Standards show that all three samples exceeded the EP Toxicity allowable concentration for Selenium. Because of this, all three wastes should be disposed of as hazardous wastes. We would note that the Selenium analyses were conducted twice for each sample and the method of standards additions utilized to confirm the results obtained.

While moot due to the failure to pass the EP Toxicity test, none of the wastes were determined to be hazardous due to the characteristics of Ignitability, Corrosivity, or Reactivity.

The following matches our sample numbers to the description supplied for each waste.

Sample #1 - Thiourea, water, triton X-100, and 1600 AG MG 90

Sample #2 - Triton X-100, water, 1600 AG MG 90, and trace of PMS10E resin

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Sample #3 - Rust inhibitor 4171, thiourea, water, triton X-100, and 1600 AG
MG 90

Please direct any questions on this analytical work to the undersigned at
814-261-5353.

Sincerely,

(b) (4)



Attachments

TK/les

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282A

BROCKWAY ANALYTICAL INCORPORATED

R. D. 2 Box 282A

BROCKWAY, PENNSYLVANIA 15824

[814] 265-1122

REPORT OF ANALYTICAL RESULTS:

CUSTOMER POWDER METAL PRODUCTS

DATE 4/20/84

SAMPLE DESCRIPTION #1

I. D. No. _____

DATE SAMPLED 2/13 NOV 3/29 1984

DATE RECEIVED 2/13 - 3/29

Parameter	Result
Acidity, Total Cold	_____
Acidity, Total Hot	_____
Alkalinity, Total	_____
Ammonia, Total	_____
Biological Oxygen Demand	_____
Chemical Oxygen Demand	_____
Chloride, Total	_____
Coliform, Fecal	_____
Coliform, Total	_____
Conductivity	_____
Cyanide, Free	_____
Cyanide, Total	_____
Fluoride,	_____
Hardness, Total	_____
M.B.A.S.	_____
trate, Total	_____
Nitrite, Total	_____
Nitrogen, Total	_____
Oil and Grease, Total	_____
pH—at 20°C	<u>7.15 S.U.</u>
Phenolics	_____
Phosphorus, Ortho	_____
Phosphorus, Poly	_____
Phosphorus, Total	_____
Solids, Settlable	_____
Solids, Total	_____
Solids Total Dissolved	_____
Solids, Total Suspended	_____
Solids, Volatile	_____
Sulfate, Total Gravimetric	_____
Sulfate Total Titration	_____
Sulfide Total	_____
Sulfite Total	_____
Sulfur, Total	_____

Parameter	Result
Aluminum, Total	_____
Aluminum, Dissolved	_____
Arsenic, Total	<u>N.D.</u>
Barium, Total	<u>.2 mg/L</u>
Calcium, Total	_____
Cadmium, Total	<u>.001 mg/L</u>
Cobalt, Total	_____
Copper, Total	_____
Chromium, Total	<u>N.D.</u>
Chromium, Dissolved	_____
Chromium, Hexavalent	_____
Gold, Total	_____
Iron, Total	_____
Iron, Dissolved	_____
Lithium Total	_____
Lead, Total	<u>N.D.</u>
Magnesium, Total	_____
Manganese, Total	_____
Manganese, Dissolved	_____
Mercury, Total	<u>N.D.</u>
Nickle, Total	_____
Potassium, Total	_____
Selenium, Total	<u>1.4 mg/L</u>
Silicon, Total	_____
Silver, Total	<u>.02 mg/L</u>
Sodium, Total	_____
Tin, Total	_____
Zinc, Total	_____

L. T.—Less than

N. D.—Not Detected

We certify that the above results were obtained using Procedures appropriate for the samples analyzed as required by various regulatory bodies. The above results are the sole property of the Listed Customer and will be held confidential by this Firm.

Signed

Date 4/20/84

BROCKWAY ANALYTICAL INCORPORATED

ORIGINAL
(Red)

R. D. 2 Box 282A
BROCKWAY, PENNSYLVANIA 15824
(814) 265-1122

REPORT OF ANALYTICAL RESULTS:

CUSTOMER Powder metal products, inc DATE 4/20/64
SAMPLE DESCRIPTION #2 I. D. No. _____
DATE SAMPLED 2/13 n-v 2/29 1964 DATE RECEIVED 2/13-2/29

Parameter	Result	Parameter	Result
Acidity, Total Cold	_____	Aluminum, Total	_____
Acidity, Total Hot	_____	Aluminum, Dissolved	_____
Alkalinity, Total	_____	Arsenic, Total	<u>N.D.</u>
Ammonia, Total	_____	Barium, Total	<u>.2 mg/L</u>
Biological Oxygen Demand	_____	Calcium, Total	_____
Chemical Oxygen Demand	_____	Cadmium, Total	<u>.001 mg/L</u>
Chloride, Total	_____	Cobalt, Total	_____
Coliform, Fecal	_____	Copper, Total	_____
Coliform, Total	_____	Chromium, Total	<u>N.D.</u>
Conductivity	_____	Chromium, Dissolved	_____
Cyanide, Free	_____	Chromium, Hexavalent	_____
Cyanide, Total	_____	Gold, Total	_____
Fluoride,	_____	Iron, Total	_____
Hardness, Total	_____	Iron, Dissolved	_____
M.B.A.S.	_____	Lithium Total	_____
Nitrate, Total	_____	Lead, Total	<u>N.D.</u>
Nitrite, Total	_____	Magnesium, Total	_____
Nitrogen, Total	_____	Manganese, Total	_____
Oil and Grease, Total	_____	Manganese, Dissolved	_____
pH—at	_____	Mercury, Total	<u>N.D.</u>
Phenolics	_____	Nickle, Total	_____
Phosphorus, Ortho	_____	Potassium, Total	_____
Phosphorus, Poly	_____	Selenium, Total	<u>1.4 mg/L</u>
Phosphorus, Total	_____	Silicon, Total	_____
Solids, Settlable	_____	Silver, Total	<u>.06 mg/L</u>
Solids, Total	_____	Sodium, Total	_____
Solids Total Dissolved	_____	Tin, Total	_____
Solids, Total Suspended	_____	Zinc, Total	_____
Solids, Volatile	_____		
Sulfate, Total Gravimetric	_____		
Sulfate Total Titration	_____		
Sulfide Total	_____		
Sulfite Total	_____		
Sulfur, Total	_____		

L. T.—Less than
N. D.—Not Detected

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Signed [Signature] Date 4/20/64
Title ANALYST

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ironmental
nists.

American Chemical Society
American Institute of Chemical Engineers
National Association of Chemical Engineers

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[814] 265-1122

REPORT OF ANALYTICAL RESULTS:

CUSTOMER Powder metal products, Inc DATE 4/20/84
SAMPLE DESCRIPTION #3 I. D. No. _____
DATE SAMPLED 2/13 n-v 3/29 1984 DATE RECEIVED 2/13 - 3/29

Parameter	Result	Parameter	Result
Acidity, Total Cold	_____	Aluminum, Total	_____
Acidity, Total Hot	_____	Aluminum, Dissolved	_____
Alkalinity, Total	_____	Arsenic, Total	<u>N.D.</u>
Ammonia, Total	_____	Barium, Total	<u>.4 mg/L</u>
Biological Oxygen Demand	_____	Calcium, Total	_____
Chemical Oxygen Demand	_____	Cadmium, Total	<u>.102 mg/L</u>
Chloride, Total	_____	Cobalt, Total	_____
Coliform, Fecal	_____	Copper, Total	_____
Coliform, Total	_____	Chromium, Total	<u>.220 mg/L</u>
Conductivity	_____	Chromium, Dissolved	_____
Cyanide, Free	_____	Chromium, Hexavalent	_____
Cyanide, Total	_____	Gold, Total	_____
Fluoride,	_____	Iron, Total	_____
Hardness, Total	_____	Iron, Dissolved	_____
M.B.A.S.	_____	Lithium Total	_____
Nitrate, Total	_____	Lead, Total	<u>1.30 mg/L</u>
Nitrite, Total	_____	Magnesium, Total	_____
Nitrogen, Total	_____	Manganese, Total	_____
Oil and Grease, Total	_____	Manganese, Dissolved	_____
pH—at	_____	Mercury, Total	<u>N.D.</u>
Phenolics	_____	Nickle, Total	_____
Phosphorus, Ortho	_____	Potassium, Total	_____
Phosphorus, Poly	_____	Selenium, Total	<u>1.4 mg/L</u>
Phosphorus, Total	_____	Silicon, Total	_____
Solids, Settlable	_____	Silver, Total	<u>.245 mg/L</u>
Solids, Total	_____	Sodium, Total	_____
Solids Total Dissolved	_____	Tin, Total	_____
Solids, Total Suspended	_____	Zinc, Total	_____
Solids, Volatile	_____		
Sulfate, Total Gravametric	_____		
Sulfate Total Titration	_____		
Sulfide Total	_____		
Sulfite Total	_____		
Sulfur, Total	_____		

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N. D.—Not Detected

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Signed [Signature] Date 4/20/84
Title Assistant Manager Chemist

Analytical and
Environmental
Chemists.

American Chemical Society
American Institute of Chemical Engineers
National Association of Corrosion Engineers